



Bullard airline filters can be used in conjunction with other compressor safeguards to supply cleaner air to airline respirators. They can also be used to supply drier, cleaner air to pneumatic tools and systems. **Bullard airline filters will not remove carbon monoxide and other toxic gases from the airline.**

Set-Up

1. Location:

Select a flat, stable location to mount the filter. Bolt the filter in position using the mounting legs. If wall mounting is desired, use the Model 41P6WM, which is designed with a wall-mount bracket.

⚠ WARNING

Filter must be mounted securely on a suitable base to prevent tipping over during use. Failure to follow this instruction could result in death or serious injury.

2. Connection:

Connect compressor hose to the air inlet. Connect the respirator or pneumatic tool airline hose to the filter outlet. Tighten the connections to prevent leaks and possible pressure loss.

⚠ WARNING

When using a respirator, do not connect the filter to any air source unless you are certain it supplies breathable air. Failure to ensure breathable air source could result in death or serious injury.

Specification G7.1 (Grade D or higher), as specified by federal law 42 CFR, Part 84, Subpart J, 84.141(b). The Bullard airline filter does not remove carbon monoxide and other toxic gases from the air being supplied. The requirements for Grade D breathable air include:

- Oxygen 19.5 - 23.0%
- Hydrocarbons (condensed)..... 5 mg/m³ max.
- Carbon Monoxide 10 ppm max.
- Carbon Dioxide 1000 ppm max.
- No toxic contaminants at levels which would make the air unsafe to breathe.

Refer to the C.G.A. Commodity Specifications G7.1 for complete details. It is available from: Compressed Gas Association, 1235 Jefferson Davis Highway, Arlington, VA 22202.

c. Air Pressure:

The air pressure at the filter inlet should not exceed 100 psig (6.89 bar). Air will be released by the pressure relief valve when pressure within the filter exceeds 125 psig (8.6 bar). Air discharging from the filter can be controlled to meet specific air pressure requirements by using the pressure regulator adjustment knob. Refer to your respirator or pneumatic tool instruction manual to find the appropriate air pressures required for correct use of the equipment.

d. Temperature:

Air supplied to the filter should not exceed 140° F (60° C). Therefore, do not connect the filter directly to the compressor exhaust manifold.

2. Correct Operation Procedures

a. Drain accumulated water and oil from the filter tank as required by opening the petcock drain valve. Normally the tank will need to be drained at least once a day. In humid climates, or if large amounts of water and oil are present in the air supply, drain the filter tank more often.

b. Tighten the fasteners which secure the head to the filter tank. Over time, the fasteners may loosen which could cause a leak in the air system. (Recommended tightness is 20 ft. lbs.)

Refer to figure 1 on page 2 of these instructions for set-up and operation.



Operation

1. Air Requirements

a. Air Source Monitoring:

Federal Law requires use of carbon monoxide and high temperature monitors or alarms when oil lubricated compressors are used as sources of breathing air. If only a high temperature alarm is used, you must frequently test the compressor air for carbon monoxide to ensure it meets the Grade D requirements discussed below.

The law also requires that breathing air hose couplings be incompatible with outlets for other gas systems in order to prevent accidental connection of a supplied air respirator to non-respirable gases or oxygen.

b. Quality of Breathing Air:

Supplied breathing air passing through this filter to a respirator must meet at least the requirements for Type 1 gaseous air as described in the Compressed Gas Association Commodity

⚠ WARNING

The 41 Series Airline filters do not remove carbon monoxide and other toxic gases. Review and observe all pertinent federal and state safety regulations in conjunction with airline respirators. Failure to observe safety regulations or improper use of Bullard Airline Filters could result in death or serious injury.

Cartridge Replacement

⚠ WARNING

Use only Bullard 41AF cartridges as replacements. Bullard Model 41 Series Airline Filters are designed to use only Bullard filter cartridges. Failure to use the correct filter cartridge could result in death or serious injury.

The frequency of filter cartridge replacement depends on the conditions of the particular air system in which the filter is installed. However, the filter cartridge should be replaced immediately if:

- The user smells or tastes contaminants in the air being supplied to an air-supplied respirator, or;
- There is a large pressure drop in the system, even though the compressor and other components appear to be operating correctly.

Corrective Action

- Shut off air supply and drain filter as described on the reverse side of this instruction sheet. Disconnect the filter from the air source before servicing.
- Replace the Cartridge:
 - Separate the filter head from the tank by removing the fasteners.
 - After removing the cartridge, clean the inside of the tank to remove any remaining contaminants.
 - Insert a new Bullard Model 41AF filter cartridge. Tighten the fasteners across from each other and not in a circular sequence. This will help prevent warping of the filter head.

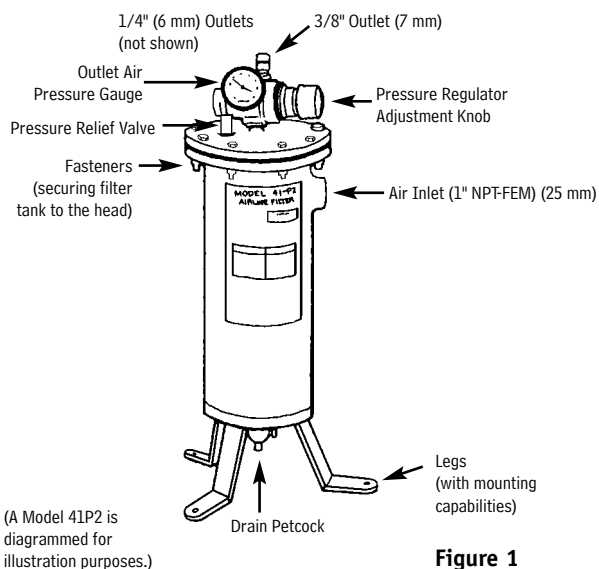


Figure 1

- Record the date the filter was replaced on the label attached to the airline filter tank. You can develop a filter cartridge replacement schedule by monitoring the frequency with which the cartridge needs to be changed.

- If conditions are not improved, do not use the filter until appropriate corrective measures have been taken.

Replaceable Filter Cartridge 7-Stage Operation

Cartridges effectively trap and remove impurities with little pressure loss. The supplied-air enters the filter at inlet connector (A), travels through 6 layers of filter material and exits at outlet connector (B) (refer to figure 2). Filter materials work in sequence to trap and hold water, oil, particulates, odors, and organic vapors so that cleaner air is delivered to workers or equipment.

- Water is removed by condensation of air in outer cylinder.
- Carded cotton removes particulates.
- Activated alumina adsorbs oil and moisture.
- Activated charcoal removes odors and moisture.
- Felt material removes particulates.
- Carded cotton removes particulates.
- Respiratory felt at final stage acts as a final filter before air is transferred to worker or air driven tools.

⚠ WARNING

Filter cartridge must be changed periodically for maximum efficiency. Frequency of cartridge changes depends on operating conditions. Cartridge should be changed immediately if respirator wearer feels, smells or tastes contaminants inside the respirator. Filter tank should be drained at least daily to remove trapped water and oil (a petcock is provided on the bottom of the tank for this purpose). Failure to follow these instructions could result in death or serious injury.

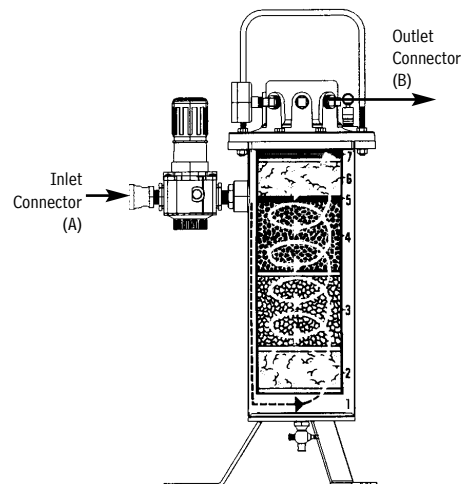


Figure 2

41 Series Airline Filters User Manual

Bullard 41EAK European Adapter Kit

The Bullard 41EAK European Adapter Kit is supplied to accommodate the threaded coupling and fitting requirements and standards of Europe.

This Kit contains:

- 1 ea. 1" (25 mm) X 3/4" (19 mm) pipe reducing bushing
- 2 ea. 1/4" (6 mm) MPT British thread adapter
- 1 ea. 3/8" (7 mm) X 1/4" (6 mm) reducing bushing

Installing Adapters:

1. Before using 41P2E filter:

- Locate the 1" (25 mm) X 3/4" (19 mm) Pipe Reducing Bushing in the 41EAK Kit bag.
- Apply thread sealant to the 1" (25 mm) X 3/4" (19 mm) Pipe Reducing Bushing.
- Install the 1" (25 mm) X 3/4" (19 mm) Pipe Reducing Bushing into the air inlet on side of filter (refer to figure 3 below).
- Tighten with a wrench until wrench tight.

2. If only one air outlet is required:

- Locate the 1/4" (6 mm) MPT British Thread adapter in the 41EAK Kit bag.
- Remove the existing pipe-to-hose adapter from the SIDE of the top mounted regulator, using a wrench.

- Apply thread sealant to the 1/4" (6 mm) MPT British Thread adapter.

- Install the 1/4" (6 mm) MPT British Thread adapter into the open port (refer to figure 4 below).

- Tighten with a wrench until wrench tight.

3. If a second air outlet is required.

- Locate the 3/8" (7 mm) X 1/4" (6 mm) MPT bushing and the 1/4" (6 mm) MPT British Thread adapter in the 41EAK Kit bag.

- Remove the existing pipe plug from the TOP of the top mounted regulator, using a wrench.

- Apply thread sealant to the 3/8" (7 mm) X 1/4" (6 mm) MPT bushing.

- Install the 3/8" (7 mm) X 1/4" (6 mm) MPT bushing into the open port (refer to figure 5 below).

- Tighten with a wrench until wrench tight.

- Apply thread sealant to the 1/4" (6 mm) MPT British thread adapter.

- Install the 1/4" (6 mm) MPT British Thread adapter into the open end of the 3/8" (7 mm) X 1/4" (6 mm) bushing that was installed in the step above (refer to figure 6 below).

- Tighten with a wrench until wrench tight.



Figure 3



Figure 4



Figure 5



Figure 6



Head Protection



Respiratory Protection



Fire and Rescue Safety



Thermal Imaging

Specifications

Airline Filter	Model 41A	Model 41P2	Model 41P6	Model 41P6WM	Model 41P2E
Max. Air Flow Rate	100 cfm* (2830 lpm)	75 cfm (2120 lpm)	75 cfm (2120 lpm)	75 CFM (2120 lpm)	75 cfm (2120 lpm)
Inlet Connection	1" NPT (Fem.)	1" NPT (Fem.)	1" NPT (Fem.)	1" NPT (Fem.)	3/4" (19 mm) NPT (Fem.)
Outlet Connection	1" NPT (Fem.)	2 outlets 1/4" & 3/8" NPT (Fem.)	6 outlets 3/8" NPT (Fem.)	6 outlets 3/8" NPT (Fem.)	2 outlets 1/4" (6 mm) BPT (Fem.)
Relief Valve	—	125 psig (8.6 bar)	125 psig (8.6 bar)	125 psig (8.6 bar)	125 psig (8.6 bar)
Tank Diameter	5 1/2" (14 cm)	5 1/2" (14 cm)	5 1/2" (14 cm)	5 1/2" (14 cm)	5 1/2" (14 cm)
Height	19" (48 cm)	23 1/2" (60 cm)	25 1/4" (64 cm)	22" (56 cm)	23 1/2" (60 cm)
Weight	19 lb. (8.6 kg)	22 lb. (10 kg)	24 lb. (10.9 kg)	28 lb. (12.7 kg)	22 lb. (10 kg)

*At maximum recommended pressure of 100 psig (6.9 bar)

Ordering Information

CATALOG NUMBER	DESCRIPTION	CATALOG NUMBER	DESCRIPTION
Bullard Airline Filters		Replacement Parts	
41A	Single-outlet filter. Pressure gauge, relief valve, and pressure regulator not included	41AF	Replacement filter cartridge
41P2	2-outlet filter with pressure gauge, relief valve, pressure regulator, and hose adapter fitting	41P6UPK	6-outlet manifold upgrade (includes manifold, regulator assembly, relief valve, and gauge) for 41P6
41P6	6-outlet filter with pressure gauge, relief valve, pressure regulator, and hose adapter fitting	41P2M	2-outlet manifold assembly (includes manifold with regulator, relief valve and gauge) for 41P2 and 41P2E
41P6WM	6-outlet filter with wall-mount bracket, pressure gauge, relief valve, pressure regulator, and hose adapter fitting.	41PRV	Pressure Relief Valve for 41P2, 41P2E, and 41P6/41P6WM airline filters. Set at 125 psig (8.6 bar).
41P2E	2-outlet filter with pressure gauge, relief valve, pressure regulator, and hose adapter fitting, plus adapters suitable for European threaded connections	41RG	Regulator Gauge for 41P2, 41P2E, and 41P6 airline filters
		41P2R	41P2 regulator and assembly (For use with flat top design only)
		41EAK	European adapter kit for 41P2E containing (1) 1" (25 mm) x 3/4" (19 mm) Pipe Reducing Bushing, (1) 3/8" (7 mm) x 1/4" (6 mm) Reducing Bushing and (2) 1/4" (6 mm) MPT British Thread Adapters.



Bullard
1898 Safety Way
Cynthiana, KY 41031-9303
Toll free: 877-BULLARD (285-5273)
Tel: 859-234-6616
Fax: 859-234-8987
www.bullard.com

Bullard GmbH
Hochkreuzallee 36
53175 Bonn-Bad Godesberg
Germany
Tel: +49 228 931933 0
Fax: +49 228 931933 50

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